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Remarks

The Office Action mailed October 18, 2006, has been received and reviewed. Claim 36 having been added and claim 12 having been canceled, the pending claims are claims 1-11, 17, 25, 26, 33, and 36. Claims 1 and 7-9 being withdrawn from examination as drawn to a non-elected invention, claims 2-6, 10, 11, 17, 25, 26, 33, and 36 are currently under examination. Reconsideration and withdrawal of the rejections are respectfully requested. Support for new claim 36 is found in original claim 10 and throughout the specification. See, for example, page 15, lines 9-19; page 27, lines 28-33; page 29, lines 5-7; page 31, lines 29-33; page 36, lines 1-3; and page 40, lines 12-18 of the specification. Applicants submit that no new matter is added with new claim 36.

Piecemeal Prosecution

MPEP 707.07(g) directs that "piecemeal examination should be avoided as much as possible." Further, "[w]hen an examiner is assigned to act on an application which has received one or more actions by some other examiner, full faith and credit should be given to the search and action of the previous examiner unless there is a clear error in the previous action or knowledge of other prior art. In general the second examiner should not take an entirely new approach to the application or attempt to reorient the point of view of the previous examiner, or make a new search in the mere hope of finding something" (MPEP 704.10 and 706.04).

In a nonfinal Office Action (mailed January 31, 2006), the Examiner rejected the claims under 35 U.S.C. §103, as obvious over Ito et al. in view of Massague et al. and further in view of Allen-Hoffmann et al., asserting that "[o]ne of ordinary skill in the art would have reasonably expected to obtain a benefit upon combining Ito's with Massague's and Allen-Hoffman's teachings because the combined teachings have been demonstrated in the prior art to be reasonably predictive of screening for therapeutic agents" (see bridging pages 4-5, Office Action mailed January 31, 2006). Now, in a second nonfinal Office Action (mailed October 28, 2007), the Examiner takes an apparently contradictory position, withdrawing the 103 rejections and rejecting the claims under 35 U.S.C. §112, first paragraph, as failing to comply with the

enablement requirement, asserting that "given the unpredictability of the cancer therapeutic arts ... it cannot be predicted that the invention will function as claimed. Thus, undue experimentation will be required to practice the claimed invention" (page 9, Office Action mailed October 18, 2007). Applicants respectfully request that the Examiner apply a consistent interpretation of level of skill in the art throughout the examination process. Further, the language of claim 10, still in its original presentation, is now, with a second nonfinal Office Action, considered indefinite under 35 U.S.C. §112, second paragraph. Applicants express concern with the apparent piecemeal prosecution of the present application and the added prosecution costs and time delays associated with such piecemeal prosecution.

The 35 U.S.C. §112, Second Paragraph, Rejection

The Examiner rejected claims 2-6, 10, 11, 17, 25, 26, and 33 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. This rejection is traversed.

The Examiner asserted that the recitation "higher p57/KIP2 level" in claim 10 "is a relative term that renders the claims indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of skill in the art would not be able to be reasonably apprised *(sic)* of the scope of the invention" (page 2, Office Action mailed October 18, 2006). Applicants adamantly, yet respectfully disagree. Claim 10 is drawn to a method comprising "determining the p57/KIP2 level in the normal cells after contacting with the agent; . . . determining the p57/KIP2 level in the cancer cells after contacting with the agent; and comparing the p57/KIP2 level in the normal cells after contacting with the agent to the p57/KIP2 level in the cancer cells after contacting with the agent; wherein a higher p57/KIP2 level in the normal cells compared to the p57/KIP2 level in the cancer cells indicates the agent is effective for the treatment of cancer." Applicants submit that the recitation "higher p57/KIP2 level," when read in the full context of claim 10, is defined by the claim and is well understood to one of skill of in the art. Specifically, with the method of claim 10 one determines the p57/KIP2 level in the normal cells; determines the p57/KIP2 level in the cancer cells; and

compares the p57/KIP2 level in the normal cells to the p57/KIP2 level in the cancer cells after contacting with the agent; *wherein a higher p57/KIP2 level in the normal cells compared to the p57/KIP2 level in the cancer cells* indicates the agent is effective for the treatment of cancer. Reconsideration and withdrawal of this rejection is requested.

The Examiner asserted that the recitation "p57/KIP2" is ambiguous as the sole means of identifying the claimed protein, that "the use of laboratory designations only to identify a particular protein renders that claims indefinite because different laboratories may use the same laboratory designations to define completely distinct proteins" page 3, Office Action mailed October 18, 2006). Applicants respectfully disagree. p57/KIP2 is not, as asserted by the Examiner, a laboratory designation internal to the inventor's laboratory. Rather, as explained in the specification (see, for example, page 18, lines 27-31 of the specification) and shown by the scientific literature (see, for example, "Cloning of p57KIP2, a cyclin-dependent kinase inhibitor with unique domain structure and tissue distribution," Lee et al., Genes Dev. 1995; 9:639-49), "p57/KIP2" is the well accepted designation for a known protein. Reconsideration and withdrawal of this rejection of claims 2-6, 10, 11, 17, 25, 26, and 33 under 35 U.S.C. §112, second paragraph, is requested.

The 35 U.S.C. §112, First Paragraph, Rejection

The Examiner rejected claims 2-6, 10, 11, 17, 25, 26, and 33 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement, and containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This rejection is traversed.

Specifically, the Examiner asserted that "given the unpredictability of the cancer therapeutic arts and the lack of any working examples in the specification that show that agents identified via the claimed methods will be effective for the treatment of cancer, it cannot be predicted that the invention will function as claimed, thus, undue experimentation will be required to practice the claimed invention" (page 9, Office Action mailed October 18, 2006).

Applicants disagree and submit that the specification presents adequate guidance, including working examples, to allow one of skill in the art to practice the claimed invention without undue experimentation. The method of the claimed invention comprises "contacting normal cells with the agent; determining the p57/KIP2 level in the normal cells after contacting with the agent; contacting cancer cells with the agent; determining the p57/KIP2 level in the cancer cells after contacting with the agent; and comparing the p57/KIP2 level in the normal cells after contacting with the agent to the p57/KIP2 level in the cancer cells after contacting with the agent; wherein a higher p57/KIP2 level in the normal cells compared to the p57/KIP2 level in the cancer cells indicates the agent is effective for the treatment of cancer."

Applicants submit that the specification presents working examples using the claimed method to identify at least three agents (green tea, GTPP and EGCG) that are effective for the treatment of cancer (see, for example, page 31, lines 26-29, page 34, lines 8-11, page 36, lines 1-10, page 40, lines 12-18, and page 71, lines 26-28 of the specification). Applicants direct the Examiner to Katiyar and Elmets (International Journal of Oncology 18:1307-1313, 2001), Stoner and Mukhtar (Journal of Cellular Biochemistry, Supplement 22:169-180, 1995), and Suganuma et al. (Mutation Research 428:339-344, 1999) (copies provided with Information Disclosure Statement filed August 12, 2004), which demonstrate the in vivo therapeutic effectiveness of green tea, GTPP, and EGCG in cancer. For example, "a case-control study on breast cancer patients revealed high daily consumption of green tea was associated with a lower recurrence rate among Stages I and II patients" (see Suganuma et al, abstract); "anticarcinogenic effects of green tea are mainly determined in various animal models," "oral feeding of GTP to . . . mice resulted in significant protection against skin tumorogenesis when evaluated in terms of tumor incidence, tumor multiplicity and tumor size," "topical application of ECGC inhibited photocarcinogenesis in . . . mice with no visible toxicity," and "the water extract of green tea as a sole source of drinking water to mice afforded protection against UVB radiation induces tumor initiation and tumor promotion and also induced partial regression of established skin papillomas" (see Katiyar and Elmets, page 1309); and GTPs and ECGC "possess strong anticarcinogenic effects in skin and other tissue" (see Stoner and Mukhtar, page 170 and 172).

Applicants submit that the specification provides adequate guidance, including at least three working examples, to practice the claimed method of identifying chemotherapeutic agents.

The Examiner asserted that "one cannot extrapolate the teachings of the specification to the enablement of the claims because the finding that green tea polyphenols induce a p57/KIP2 response in normal cells but not in cancer cell lines, is not sufficient to establish that such a differential effect occurs in vivo" (page 6, Office Action mailed October 18, 2006). Applicants do not understand the relevance of this statement to the presently claimed invention, a method of identifying an agent. Applicants are not claiming a method of treating a subject with cancer by administering an agent that induces the differential induction of p57/KIP2 in normal versus cancer cells. Thus, Applicants do not understand the Examiner's requirement that such a differential induction of a p57/KIP2 response be shown in vivo.

In view of the above discussion, reconsideration and withdrawal of the rejection of claims 2-6, 10, 11, 17, 25, 26, and 33 under 35 U.S.C. §112, first paragraph, is requested.

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Summary

It is respectfully submitted that the pending claims 2-6, 10, 11, 17, 25, 26 and 33 are in condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted
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February 20, 2007
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CERTIFICATE UNDER 37 CFR §1.8:
The undersigned hereby certifies that the Transmittal Letter and the paper(s), as described hereinabove, are being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the Patent and Trademark Office, addressed to **Mail Stop Amendment**, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 20 day of February, 2007, at 1:25pm (Central Time).

By: Sandy Truehart
Name: Sandy Truehart